

Mr. Jim Robertson
DaimlerChrysler Corporation
1817 I Avenue
New Castle, IN 47362

Re: **065-13804-00001**
Second Significant Revision to
FESOP 065-5619-00001

Dear Mr. Robertson:

DaimlerChrysler Corporation was issued a permit on December 12, 1996 for an automotive parts manufacturing operation. A letter requesting changes to this permit was received on January 19, 2001. Pursuant to the provisions of 326 IAC 2-8-11.1, a significant permit revision to this permit is hereby approved as described in the attached Technical Support Document.

The modification consists of:

- (a) an increase in the capacity of existing shot blast operations N-3 and N-22 from 3,000 and 2,250 pounds of forged parts, respectively, to 5,672 and 4,276 pounds of forged parts respectively; and
- (b) an increase in the 326 IAC 6-3 hourly limits of shot blast operations N-3 and N-22 from 5.38 and 4.44 lb PM/hr, respectively, to 8.33 and 6.83 lb PM/hr, respectively.

To incorporate these proposed changes to the permit, the FESOP shall be amended as follows:

- (a) the source description of Section A shall be amended to incorporate the new capacities,
- (b) the source description of Section D.2 shall be changed to incorporate the new capacities,
- (c) the 326 IAC 6-3 PM limitations of Condition D.2.1 shall be amended to reflect the new requested limitations,
- (d) Condition D.2.2 shall be amended to reflect the new hourly PM10 limits required, and
- (e) Condition D.2.3 shall be amended to require PM10 testing of shot blast operations N-3 and N-22 and allow testing of modifications to N-3 and N-22 that require it.

The following construction conditions are applicable to the proposed project:

1. General Construction Conditions
The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).

2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
4. Pursuant to 326 IAC 2-1.1-9 (Revocation), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

Pursuant to 326 IAC 2-8-11.1, this permit shall be revised by incorporating the significant permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this modification and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Scott Fulton, OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call at (800) 451-6027, press 0 and ask for Scott Fulton or extension (3-5691), or dial (317) 233-5691.

Sincerely,

Original signed by Paul Dubenetzky

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments
SDF

cc: File - Henry County
U.S. EPA, Region V
Henry County Health Department
Air Compliance Section Inspector - Warren Greiling
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

**FEDERALLY ENFORCEABLE STATE
OPERATING PERMIT (FESOP)
OFFICE OF AIR QUALITY**

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015
Phone: 1-800-451-6027

**Chrysler Corporation New Castle Machining & Forge Plant
1817 "I" Avenue
New Castle, Indiana 47362**

Chrysler Corporation New Castle Machining & Forge Plant is hereby authorized to operate subject to the conditions contained herein, the facilities listed in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 and contains the conditions and provisions specified in 326 IAC 2-8 and 40 CFR Part 70.6 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments) and IC 13-15 and IC 13-17 (prior to July 1, 1996, IC 13-1-1-4 and IC 13-7-10).

Operation Permit No.: F 065-5619-00001	Issued: December 12, 1996
First Significant Permit Revision No.: 065-11005-00001	Issued: October 7, 1999
First Administrative Amendment No.: 065-12797-00001	Issued: November 9, 2000
First Minor Permit Modification No.: 065-12960I-00001	Issued: December 8, 2000
Second Minor Permit Modification No. 065-12960-00001	Issued: January 18, 2001
Second Significant Permit Revision No.: 065-13804-00001	Affected Pages: 4, 25 with 25a added
Issued by: Original signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief, Office of Air Quality	Issuance Date: June 4, 2001

SECTION A SOURCE SUMMARY

A.1 General Information [326 IAC 2-8-3(c)]

The Permittee owns and operates an automotive parts manufacturing source.

Responsible Official: Jim Robertson, Plant Manager
Source Address: 1817 "I" Avenue, New Castle, Indiana 47362
Mailing Address: 1817 "I" Avenue, New Castle, Indiana 47362
SIC Code: 3714
County Location: Henry
County Status: Attainment for all criteria pollutants
Source Status: Synthetic Minor Source, FESOP Program

A.2 Emission Units and Pollution Control Summary [326 IAC 2-8-3(c)]

The stationary source consists of the following emission units and pollution control devices:

- a) One (1) natural gas-fired boiler, rated at 250 MMBtu per hour, identified as B-6, exhausting through Stack 205, with #2 fuel oil as backup.
- b) One (1) natural gas-fired boiler, rated at 31.4 MMBtu per hour, identified as B-9, exhausting through Stack 218, with #2 fuel oil as backup.
- c) Two (2) natural gas-fired boilers, each rated at 8.37 MMBtu per hour, identified as B-10 and B-11, exhausting through one (1) stack, each, with #2 fuel oil as backup.
- d) One (1) shot blasting operation, capacity: 3,000 lbs per hour, identified as N-3, equipped with a baghouse, exhausting through Stack 500.
- e) One (1) shot blasting operation, capacity: 5,762 lbs per hour, identified as N-3, equipped with a baghouse, exhausting through Stack 500.
- f) One (1) shot blaster, capacity: 4,276 lbs per hour, identified as N-22, equipped with a baghouse, exhausting internally into the building.
- g) One (1) maintenance paint booth, capacity: one (1) unit per hour, identified as N-26, exhausting through Stack 102.
- h) One (1) piston pin packer, capacity: 2,500 parts per hour, identified as N-31, exhausting through Stack 20.
- i) One (1) parts washer, capacity: 0.2 gallons per hour, identified as N-32, exhausting through Stack 6.

A.3 Insignificant Activities [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(20):

- a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.

SECTION D.2

FACILITY OPERATION CONDITIONS

One (1) shot blasting operation, capacity: 5,762 lbs per hour, identified as N-3, equipped with a baghouse, exhausting through Stack 500.

One (1) shot blaster, capacity: 4,276 lbs per hour, identified as N-22, equipped with a baghouse, exhausting internally into the building.

Emissions Limitations [326 IAC 2-8-4(1)]

D.2.1 Particulate Matter

Pursuant to 326 IAC 6-3 (Process Operations), the particulate matter emissions from shot blasting operations N-3 and N-22 shall not exceed 8.33 and 6.83 pounds per hour, respectively.

D.2.2 PM₁₀

PM₁₀ emissions from shot blast operation N-3 shall not exceed 4.50 lb/hr and the PM₁₀ emissions from shot blast operation N-22 shall not exceed 1.84 lb/hr. Therefore, the requirements of 326 IAC 2-7 do not apply.

Testing Requirements [326 IAC 2-8-4(3)]

D.2.3 Particulate Matter

That the Permittee shall conduct stack testing for PM and PM10 from the shot blasting operation and baghouses utilizing methods acceptable to the Commissioner. The initial test shall be completed within 24 to 36 months of permit issuance and shall be repeated no less than once every five years from the issuance of the permit unless the owner or operator makes a physical change or change in the method of operation.

If, within the interim period between tests, the owner or operator makes a physical change or change in method of operation to:

- (a) shot blast operation N-3, or N-22, or both, that increases the potential to emit of particulate matter (PM) or PM10 to greater than the 40 CFR 52.21 (326 IAC 12) PSD major source or significant levels, whichever are applicable, or
- (b) shot blast operation N-3 or N-22, that increases the potential to emit of particulate matter (PM) or PM10 to greater than 40% of the respective uncontrolled source PM or PM10 emissions, if the baghouses controlling the affected increase in emissions have not been tested in the past five years prior to the date the application for said increase(s) has been submitted, then

the owner or operator shall perform compliance stack tests for PM, PM10, or both, whichever is applicable, using methods approved by the Office of Air Quality. The first subsequent stack test shall be performed 5 years after the date of completion of the most recent stack test with all subsequent stack tests after that being conducted every five years, unless otherwise required to conduct stack testing.

Compliance Monitoring Requirements [326 IAC 2-8-5(a)(1)]

D.2.4 Daily Visible Emissions Notations

Daily visible emission notations of the N-3 shot blaster baghouse stack exhaust, shall be performed during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, 80 percent of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

D.2.5 Broken Bag or Failure Detection

That in the event that bag failure has been observed:

- a) The affected compartments will be shut down immediately until the units have been replaced.
- b) Based upon the findings of the inspection, any additional corrective actions will be devised within eight (8) hours of discovery and will include a timetable for completion.

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Significant Permit Revision to a Federally Enforceable State Operating Permit

Source Background and Description

Source Name:	Daimler Chrysler
Source Location:	1817 "I" Avenue, New Castle, Indiana 47362
County:	Henry
Operation Permit No.:	F 065-5619-00001
Operation Permit Issuance Date:	December 11, 1996
Permit Revision No.:	065-13804-00001
Permit Reviewer:	SDF

The Office of Air Quality (OAQ) has reviewed a revision application from Daimler Chrysler relating to the operation of a machining and forge plant.

History

On January 19, 2001, Daimler Chrysler submitted an application to the OAQ requesting to increase the capacity of existing shot blasting operations N-3 and N-22 resulting in an increase in the particulate matter (PM) emission limitations for the respective blast operations.

The capacity of shot blast operation N-3 shall increase from 3,000 pounds of forged and heat treated parts per hour to 5,762 pounds per hour. The capacity of shot blast operation N-22 shall increase from 2,250 pounds of forged and heat treated parts to 4,276 pounds per hour.

The PM emission limitation for shot blast operation N-3 shall increase from 5.38 lb/hr to 8.33 lb/hr and the PM emission limitation for shot blast operation N-22 shall increase from 4.44 lb/hr to 6.83 lb/hr due to the increased process weight rates.

To incorporate these proposed changes to the permit, the FESOP shall be amended as follows:

- (a) the source description of Section A shall be amended to incorporate the new capacities,
- (b) the source description of Section D.2 shall be changed to incorporate the new capacities,
- (c) the 326 IAC 6-3 PM limitations of Condition D.2.1 shall be amended to reflect the new requested limitations,
- (d) Condition D.2.2 shall be amended to reflect the new hourly PM10 limits required, and
- (e) Condition D.2.3 shall be amended to require PM10 testing of shot blast operations N-3 and N-22 and allow testing of modifications to N-3 and N-22 that require it.

All other conditions and language shall remain the same.

Existing Approvals

The source was issued a Federally Enforceable State Operating Permit (F 065-5619-00001) on December 11, 1996. The source has since received the following:

(a)	First Significant Permit Revision:	065-11005-00001	Issued: 10-07-99
(b)	First Administrative Amendment:	065-12797-00001	Issued: 11-09-00
(c)	First Minor Permit Modification:	065-12960I-00001	Issued: 12-08-00
(d)	Second Minor Permit Modification:	065-12960-00001	Issued: 01-18-01

Recommendation

The staff recommends to the Commissioner that the Significant Source Modification be approved. This recommendation is based on the following facts and conditions:

Emission Calculations

A. UNRESTRICTED PTE AFTER PROPOSED CHANGES:

The following calculations determine the unrestricted potential to emit after the proposed increases in capacities of shot blast operations N-3 and N-22 based on the original capacities of 3,000 and 2,250 pounds metal per hour for shot blast operations N-3 and N-22, respectively, the final capacities of 5,762 and 4,276 pounds of metal per hour for shot blast operations N-3 and N-22, respectively, the worst case shot throughput, emissions before controls, and 8,760 hours of operation.

N-3:

$$\begin{aligned}\text{Shot Used per week at 3000 lb/hr} &= 0.5 \text{ hopper/wk} \\ \text{Shot Used Per Week at 5762 lb/hr} &= 0.5 \text{ hopper/wk} * (5762 \text{ lb/hr} / 3000 \text{ lb/hr}) = 0.96 \text{ hopper/wk}\end{aligned}$$

$$\begin{aligned}0.96 \text{ hopper/wk} * 1/40 \text{ wk/hr} * 13.5 \text{ ft}^3/\text{hopper} * 389 \text{ lbs PM/ft}^3 &= 126.04 \text{ lb PM/hr} \\ 126.04 \text{ lb PM/hr} * 8760 \text{ hr/yr} * 1/2000 \text{ ton/lb} &= \mathbf{552.06 \text{ ton PM/yr}}\end{aligned}$$

N-22:

$$\begin{aligned}\text{Shot Used per week at 2250 lb/hr} &= 0.38 \text{ hopper/wk} \\ \text{Shot Used Per Week at 4276 lb/hr} &= 0.38 \text{ hopper/wk} * (4276 \text{ lb/hr} / 2250 \text{ lb/hr}) = 0.72 \text{ hopper/wk}\end{aligned}$$

$$\begin{aligned}0.72 \text{ hopper/wk} * 1/40 \text{ wk/hr} * 55 \text{ gal/hopper} * 52 \text{ lbs PM/gal} &= 51.48 \text{ lb PM/hr} \\ 51.48 \text{ lb PM/hr} * 8760 \text{ hr/yr} * 1/2000 \text{ ton/lb} &= \mathbf{225.48 \text{ ton PM/yr}}\end{aligned}$$

Total PM PTE After the Changes:

The total PM emissions after the proposed changes are the sum of the N-3 and N-22 PTEs.

$$552.06 \text{ tons PM/yr} + 225.48 \text{ tons PM/yr} = \mathbf{777.54 \text{ tons PM/yr}}$$

PM is determined to be equal to PM10 in this case.

B. UNRESTRICTED PTE DUE TO THE PROPOSED CHANGES:

The following calculations determine the unrestricted PTE due to the modification based on the respective unrestricted PTEs after the proposed changes and the respective PTEs before the changes.

PTE Due to the Changes = PTE After the Changes - PTE Before the Changes

$$\begin{aligned}\mathbf{N-3:} \quad 552.06 \text{ tons/yr} - 290.00 \text{ tons/yr} &= \mathbf{262.06 \text{ tons PM/yr}} \\ \mathbf{N-22:} \quad 225.48 \text{ tons/yr} - 119.00 \text{ tons/yr} &= \mathbf{106.48 \text{ tons PM/yr}}\end{aligned}$$

Total PM PTE Due to the Changes:

The total PM emissions due to the proposed changes are the sum of the N-3 and N-22 PTEs.

$$262.06 \text{ tons PM/yr} + 106.48 \text{ tons PM/yr} = \mathbf{368.54 \text{ tons PM/yr}}$$

PM is determined to be equal to PM10 in this case.

C. PTE DUE TO THE MODIFICATION AFTER CONTROLS:

The following calculations determine the PTE after controls based on the use of a baghouse with a 99% efficiency.

$$\begin{aligned} \text{PTE After Controls} &= \text{PTE Before Controls} * (1 - 0.99) \\ &= 368.54 \text{ ton PM/yr} * (1 - 0.99) = 3.69 \text{ tons/yr} \end{aligned}$$

PM is determined to be equal to PM10 in this case.

D. LIMITED PTE:

The shot blast units are subject to 326 IAC 6-3-2, particulate matter emission limitations for process operations. Pursuant to 326 IAC 6-3-2, the PM emission limit for process weight rates of 2.88 tons/hr and 2.14 tons/hr for shot blast operations N-3 and N-22, respectively, are estimated to be 8.33 lb PM/hr and 6.83 lb PM/hr, respectively.

Potential To Emit After Revision

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA.”

This table reflects the PTE before controls for the source after this revision. Control equipment and applicable limitations are not considered federally enforceable until it has been required in a federally enforceable permit. The emissions in these tables are existing source enforceable PTE and the net increase in the PTE before controls and limitations.

Pollutant	Potential To Emit (tons/year)
PM	726.54
PM-10	726.54
SO ₂	662
VOC	39.9
CO	46.4
NO _x	186

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential To Emit (tons/year)
None	0.00
TOTAL	0.00

Justification for Revision

The FESOP is being revised through a FESOP Significant Permit Revision. This revision is being performed pursuant to 326 IAC 2-8-11.1(f)(1)(E), "A significant permit revision is a modification that is not an administrative amendment under section 10 of this rule or subject to subsection (d) (Minor Permit Revision) and includes any modification with a potential to emit (PTE) greater than or equal to twenty-five (25) tons per year of PM, PM₁₀, SO₂, NO_x, VOC, H₂S, TRS, reduced sulfur compounds, or fluorides. The PTE of PM and PM₁₀, (368.54 tons PM(PM10)/yr) exceed 25 tons per year. Thus, a significant revision is required.

County Attainment Status

The source is located in Tippecanoe County.

Pollutant	Status
PM ₁₀	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Henry County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Henry County has been classified as attainment or unclassifiable for all criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (c) Fugitive Emissions

Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	39.24
PM ₁₀	39.24
SO ₂	35.80
VOC	37.66
CO	18.30
NO _x	73.00

- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the 28 listed source categories.
- (b) These emissions are based upon the limited emissions table in the Technical Support Document (TSD) to F065-5619-00001.

Potential to Emit of Revision After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this FESOP revision.

	Potential to Emit (tons/year)						
Process/facility	PM	PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs
Total Source Emissions After Controls and Limits	39.24	39.24	35.80	37.66	18.30	73.00	-

Part 70 Major Source Threshold	-	100	100	100	100	100	10 ind. 25 tot.
PSD Threshold Level	250	250	250	250	250	250	-

- (a) This revision to an existing minor stationary source is not major because the emission increase is less than the PSD threshold levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.
- (b) Since the potential to emit from the entire source after the revision is less than 250 tons per year of each criteria pollutant, the source is a still minor source pursuant to 326 IAC 2-2, PSD.
- (c) This revision to the existing FESOP will not change the status of the stationary source because the emissions from the entire source will still be limited to less than the Part 70 major source thresholds.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) that become applicable due to the proposed revision.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR art 63) that become applicable due to the proposed revision.

State Rule Applicability - Entire Source

There are no entire source state rules that become applicable due to the proposed revision.

State Rule Applicability - Individual Facilities

326 IAC 6-3-2 (Process Operations)

Since the process weight rates of shot blasting operations N-3 and N-22 increase, the PM limitations of 326 IAC 6-3-2 shall also increase.

Pursuant to 326 IAC 6-3-2, the PM emission limit for the new process weight rates of 2.88 tons/hr and 2.14 tons/hr for shot blast operations N-3 and N-22, respectively, are estimated to be 8.33 lb PM/hr and 6.83 lb PM/hr, respectively.

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where: E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

The N-3 and N-22 baghouses shall be in operation at all times the N-3 and N-22 shot blast operations are in operation, in order to comply with this limit.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

Condition D.2.3, the stack testing requirements for particulate matter, has been amended to demonstrate compliance with the new established hourly PM10 limitations of Condition D.2.2 and to allow compliance stack testing for modifications to shot blast operations N-3 and N-22 that require testing be conducted.

Proposed Changes

The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language appears in **bold**):

1. Source Emission Unit Summary of Section A:

The source emission unit Summary of A2 of Section A shall be amended to reflect the increased capacities for shot blast operations N-3 and N-22.

A.2 Emission Units and Pollution Control Summary [326 IAC 2-8-3(c)]

The stationary source consists of the following emission units and pollution control devices:

- a) One (1) natural gas-fired boiler, rated at 250 MMBtu per hour, identified as B-6, exhausting through Stack 205, with #2 fuel oil as backup.
- b) One (1) natural gas-fired boiler, rated at 31.4 MMBtu per hour, identified as B-9, exhausting through Stack 218, with #2 fuel oil as backup.
- c) Two (2) natural gas-fired boilers, each rated at 8.37 MMBtu per hour, identified as B-10 and B-11, exhausting through one (1) stack, each, with #2 fuel oil as backup.
- d) One (1) shot blasting operation, capacity: ~~3,000~~ **5,762** lbs per hour, identified as N-3, equipped with a baghouse, exhausting through Stack 500.
- e) One (1) shot blaster, capacity: ~~2,250~~ **4,276** lbs per hour, identified as N-22, equipped with a baghouse, exhausting internally into the building.
- f) Two (2) tool sharpening areas, capacity: 94 lbs per hour, each, identified as N-20 and N-21, equipped with two rotoclones, exhausting through Stacks 31 and 32.
- g) One (1) maintenance paint booth, capacity: one (1) unit per hour, identified as N-26, exhausting through Stack 102.
- h) One (1) piston pin packer, capacity: 2,500 parts per hour, identified as N-31, exhausting through Stack 20.
- i) One (1) parts washer, capacity: 0.2 gallons per hour, identified as N-32, exhausting through Stack 6.

2. Emission Unit Summary of Section D.2:

The emission unit summary of Section D.2 shall be amended to reflect the increased capacities of shot blast operations N-3 and N-22.

SECTION D.2 FACILITY OPERATION CONDITIONS

One (1) shot blasting operation, capacity: ~~3,000~~ **5,762** lbs per hour, identified as N-3, equipped with a baghouse, exhausting through Stack 500.

One (1) shot blaster, capacity: ~~2,250~~ **4,276** lbs per hour, identified as N-22, equipped with a baghouse, exhausting internally into the building.

3. Condition D.2.1:

Condition D.2.1 shall be amended as follows to reflect the changes in the 326 IAC 6-3-2 PM emission limitations due to the increased process weight rates of shot blast operations N-3 and N-22.

D.2.1 Particulate Matter

Pursuant to 326 IAC 6-3 (Process Operations), the particulate matter emissions from shot blasting operations N-3 and N-22 shall not exceed ~~5.38~~ **8.33** and ~~4.446~~ **8.33** pounds per hour, respectively.

4. Condition D.2.2:

Condition D.2.2 shall be amended to require an hourly PM10 limit for each of the shot blast operations. The hourly limit is required because the permit does not provide for demonstration of compliance with the monthly limit established. The two individual limits for the two shot blast operations are established to allow stack testing of the individual shot blast operations.

The monthly limit shall therefore be changed to 2 individual hourly limits, with initial compliance being demonstrated through stack testing for PM10. Periodic compliance will be demonstrated by requiring PM10 testing on the same 5 year schedule as the PM testing. Compliance on a continuous basis will be demonstrated through the source meeting the operating requirements specified in the permit.

The monthly PM10 limit (2.48 tons/month) equates to an annual limit of 29.76 tons/yr. The combined equivalent hourly limit is estimated to be 6.34 lb/hr.

$$2.48 \text{ tons PM10/month} * 12 \text{ months/yr} = 29.76 \text{ tons PM10/yr}$$

$$29.76 \text{ tons PM10/yr} * 1/8760 \text{ yr/hr} * 2000 \text{ lb PM10/ton PM10} = 6.34 \text{ lb PM10/hr}$$

The fractions of the combined emissions delegated to each shot blast operation based on the individual unrestricted PTEs for N-3 and N-22 after the modification 552.06 tons/yr and 225.48 tons/yr, respectively) and the combined total unrestricted PTE for N-3 and N-22 after the modification (777.54 tons/yr) are as follows:

$$\text{N-3: } [552.06 \text{ tons/yr}] / [777.54 \text{ tons/yr}] = 0.71$$

$$\text{N-22: } [225.48 \text{ tons/yr}] / [777.54 \text{ tons/yr}] = 0.29$$

Based on the emission fractions from each shot blast operation and the combined hourly limit of 6.34 lb/hr, the individual hourly limits are determined as follows:

$$\text{N-3: } 0.71 * 6.34 \text{ lb PM10/hr} = 4.50 \text{ lb PM10/hr}$$

$$\text{N-22: } 0.29 * 6.34 \text{ lb PM10/hr} = 1.84 \text{ lb PM10/hr}$$

Condition D.2.2 is therefore amended as follows to reflect the new hourly PM10 limits.

D.2.2 PM₁₀
PM₁₀ emissions from the two (2) shot blasters **operation N-3** shall not exceed **2.48 tons per month 4.50 lb/hr and the PM10 emissions from shot blast operation N-22 shall not exceed 1.84 lb/hr**. Therefore, the requirements of 326 IAC 2-7 do not apply.

5. **Condition 2.3:**

Condition D.2.3 shall be amended to allow testing for modifications that warrant compliance stack tests.

The proposed increase in capacity of the shot blast operations generates unrestricted emissions of 368.54 tons PM/yr which exceeds the Prevention of Significant Deterioration (PSD) levels of 250 tons per year.

The source is using emission controls (baghouses) to prevent the source from becoming subject to the requirements of PSD. To do so requires conditions be established that demonstrate that the control equipment achieves the proposed reductions after implementation of the proposed modifications.

Compliance shall be demonstrated through the requirement of stack testing for PM and PM10 at shot blast operations N-3 and N-22 and through updated operating parameters. The required stack testing will demonstrate that compliance is achieved for the increased loading to the baghouse due to the proposed modification. Requiring stack testing for PM and PM10 will demonstrate compliance with the PM and PM10 limitations of Conditions D.2.1 and D.2.2. Compliance with the operating parameters in the existing permit will ensure that the baghouses are operating properly and that compliance is achieved on a continuous basis.

Condition D.2.3 is therefore amended as follows:

D.2.3 Particulate Matter

That the Permittee shall conduct stack testing for PM and PM10 (~~filterable and condensable~~) from the shot blasting operation and baghouses utilizing methods acceptable to the Commissioner. ~~The initial test shall be used to establish a ratio between PM and PM10 and future tests shall be for PM10 only. Unless the two (2) particulate fractions are such that PM = PM10 then a test for PM shall only be considered acceptable for future compliance demonstrations.~~ **This initial test shall be completed within 24 to 36 months of permit issuance and shall be repeated no less than once every five years from the issuance of the permit: unless the owner or operator makes a physical change or change in the method of operation.**

If, within the interim period between tests, the owner or operator makes a physical change or change in method of operation to:

- (a) shot blast operation N-3, or N-22, or both, that increases the potential to emit of particulate matter (PM) or PM10 to greater than the 40 CFR 52.21 (326 IAC 12) PSD major source or significant levels, whichever are applicable, or**

(b) shot blast operation N-3 or N-22, that increases the potential to emit of particulate matter (PM) or PM10 to greater than 40% of the respective uncontrolled source PM or PM10 emissions, if the baghouses controlling the affected increase in emissions have not been tested in the past five years prior to the date the application for said increase(s) has been submitted, then

the owner or operator shall perform compliance stack tests for PM, PM10, or both, whichever is applicable, using methods approved by the Office of Air Quality. The first subsequent stack test shall be performed 5 years after the date of completion of the most recent stack test with all subsequent stack tests after that being conducted every five years, unless otherwise required to conduct stack testing.

All other conditions shall remain the same.

Conclusion

The operation of this proposed modification shall be subject to the conditions of the attached proposed significant permit revision No. 065-13804-00001, all other applicable requirements under FESOP Permit No. 065-5619-00001, and the applicable requirements of all other revisions and modifications to the original FESOP.